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County of Los Angeles
CHIEF ADMINISTRATIVE OFFICE

713 KENNETH HAHN HALL OF ADMINISTRATION • LOS ANGELES, CALIFORNIA 90012
(213) 974-1101

December 10, 2001

DAVID E. JANSSEN
Chief Administrative Officer

Board of Supervisors

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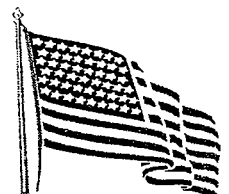
From: David E. Janssen 
Chief Administrative Officer

**STANDARDS AND PROCEDURES FOR INTERAGENCY COORDINATION AND
NOTIFICATION OF HAZARDS AFFECTING COUNTY SHORELINES**

On November 6, 2001, on a motion by Supervisor Knabe, the Board instructed my office to report back within 30 days on: 1) the adequacy of existing standards and procedures, especially on nights and weekends, for interagency coordination and notification hazards affecting County shorelines; and 2) what breakdowns occurred in existing procedures which contributed to the delays in notification and response to the November 3, 2001, sewer spill and what protocols should be in place to prevent this breakdown of communication in the future. Your Board further instructed my office to consult with the Department of Beaches and Harbors, the City of Los Angeles, Department of Public Works, Bureau of Sanitation, the Department of Health Services (DHS), the Fire Department/Lifeguards, and representatives from Beach cities in preparing our response. This report presents a summary of the events, the scope and level of the existing standards and protocols, and the corrective measures being taken by the responsible agencies in response to this incident.

Background

On Friday evening, November 2, 2001, a sewage spill occurred at the Ballona Creek Pump Plant (BCPP) as a result of a power outage and subsequent failure to activate a backup system. Due to malfunctions in the BCPP's alarm system, notification to the County Department of Health Services (DHS) was delayed until Saturday night, November 3, 2001, at which time DHS staff notified County Lifeguard staff to post signs on the affected beaches, which occurred the following morning. By Tuesday, November 6, 2001, tests by DHS staff revealed that ocean waters were in compliance with State bacteriological standards and the beaches were reopened. Attachment A provides a detailed chronology of this incident and a summary of existing DHS standards and procedures in dealing with such incidents.



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The Los Angeles City Bureau of Sanitation (L.A. City Bureau) has submitted its report of the incident to the State Water Resources Control Board, the regulatory agency with oversight responsibility. In this report, the L.A. City Bureau identifies the contractor performing construction work to upgrade BCPP as the primary party responsible for the spill. The State Water Resources Control Board is currently reviewing this incident and may exercise its ability to impose fines on the City and/or take action against the contractor.

Follow-up Actions

After the incident, DHS contacted the County Department of Beaches and Harbors, the County Fire Department, and various beach cities and met with representatives from the L.A. City Bureau and the advocacy group, Heal the Bay, to review the incident, actions by the affected agencies, the current interagency procedures, and to make recommendations for improving the communication process between agencies.

The L.A. City Bureau indicates that this spill could have been avoided if the contractor's bypass system had been properly tested prior to the weekend. In response, the L.A. City Bureau is implementing new procedures requiring any contractor to test their bypass systems every Friday and to document the results with the L.A. City Bureau. In addition, the L.A. City Bureau will continue to maintain all of its wastewater facilities on a regular basis.

Conclusion

Our review indicates that the County's existing standards and procedures, including those pertaining to nights and weekends, for handling sewage spills are clearly defined, adequate to protect public health and safety, and in accordance with State laws and regulations. The chronology of events indicates that, upon notification by the L.A. City Bureau, the County responded immediately to the sewage spill and followed all established protocols for handling sewer spills and posting of beach notices. Due to the concerns expressed by the various agencies and the public, a task force composed of representatives from the L.A. City Bureaus of Contract Administration, Engineering and Sanitation, the County Department of Health Services, and interested environmental groups have reviewed the incident and developed procedures to improve public notification to prevent a reoccurrence.

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If you need additional information, please call me, or your staff may contact Raul Rios of my staff at (213) 974-1758.

DEJ:DL
SRK:RR:tld

Attachments

c: Executive Officer, Board of Supervisors
County Counsel
Acting Director, Department of Health Services
Director, Beaches and Harbors
Director, Fire Department
Director, City of Los Angeles, Bureau of Sanitation

Chronology of Events

On Friday, November 2, 2001, at approximately 6:00 p.m., the Ballona Creek Pump Plant (BCPP) lost power due to a car collision that downed nearby power lines. As a result of the power outage and a malfunction in the bypass system, a sewage spill occurred at the BCPP. The facility was and still is under the control of a contractor performing construction work to upgrade the plant, and was not being monitored by the City's systems at the time of the incident. The contractor was fully responsible for all monitoring of the BCCP's bypass system, according to the bypass system provisions of their contract with the City. As an element of this bypass system, an auto-dialer system was designed to be activated by a power failure and to send a prerecorded message to both the contractor and the City. The City did not receive any notifications or alarms from the system nor from the contractor.

On Saturday, November 3, 2001, at approximately 9:30 a.m., the City was notified of a maintenance hole overflowing at 12764 Panama Street. A wastewater collection crew was immediately dispatched and discovered that several maintenance holes in the area were overflowing. The crew established containment and proceeded to determine the cause of the backup. Crews then began to trace the sewer system to locate a possible major blockage.

At approximately 12:00 p.m., a second crew was dispatched to a report of additional overflows in the vicinity of 12474 Beatrice Street. Again, the crew established containment and proceeded to determine the cause of the backup.

At approximately 3:00 p.m., the on-duty supervisor received notification from the field crews that they were unable to determine the cause of these backups and they requested field maps of the area. The supervisor responded to the location and suspected that the BCPP may have contributed to these backups. He contacted the Venice Pumping Plant (VPP), the City's largest wastewater pumping facility that serves as the main operation center for the pumping plants, to determine the status of the BCPP. Since BCPP was not fully operational, it was not being monitored by the City and the VPP had not received notification of any problems with the BCPP. Nevertheless, the on-duty supervisor directed additional emergency response personnel to investigate the BCPP, even though it was under the contractor's responsibility.

At approximately 4:30 p.m., the third crew arrived at the BCPP and discovered the main control system had failed and the circuit breakers to all three of the contractor's bypass pumps were in the "off" position. They activated the circuit breakers and the backup ceased at approximately 4:40 p.m. The City crews began cleanup activities under the direction of the on-duty supervisor, while the contractor began to assess the bypass system failure.

At approximately 8:15 p.m., the City calculated an estimate of the spill volume. At approximately 9:30 p.m., DHS staff were notified that 450,000 gallons of raw sewage had entered Ballona Creek. By 10:00 p.m., DHS staff had notified the County Lifeguard

Division that the beaches between Rose Avenue in Venice, southward to Grand Avenue in Los Angeles, were being closed. It was agreed that the signs would be posted in the morning. Both the beach hotline and the DHS website were updated to reflect the closure.

On Sunday, November 4, 2001, at approximately 8:30 a.m., DHS staff contacted the County Lifeguard Division, and confirmed the beach closure. At 8:40 a.m., DHS Recreation Health Program staff contacted the County operator and requested to be connected with the DHS' Public Information Officer. Contact was made at approximately 11:00 a.m.

At approximately 4:30 p.m., the Los Angeles City Bureau of Sanitation contacted DHS staff and advised that the estimate for the sewage spill had been increased from 450,000 to 1,354,000 million gallons. DHS staff contacted the Lifeguard Division and increased the closure to Wilshire Blvd. in Santa Monica, southward to 28th St. in Manhattan Beach, a distance of approximately 9.5 miles.

Over the next day and a half, a comprehensive investigation was conducted and shoreline monitoring samples were analyzed. A detailed analysis of the collection system characteristics revealed that the majority of the sewage that was earlier believed to have backed up out of the system, had actually entered the adjacent North Outfall Sewer through a previously installed temporary bypass pipe. It is estimated that approximately 251,857 gallons of sewage backed out of the system as a result of the BCPP being rendered inoperable. Crews were able to capture and return to the sewer system approximately 47,005 gallons of sewage. The remaining 204,852 gallons entered the storm drain system that is tributary to Ballona Creek.

On Tuesday, November 6, 2001, at 3:30 p.m., testing results from the Hyperion Treatment Plant as well as the results of ocean water samples taken by the DHS Recreational Health Program staff revealed that all affected areas were below State ocean water bacteriological standards. DHS staff immediately informed the Lifeguard Division and reopened all beaches.

Existing Standards and Procedures

The State's primary statute governing water quality and water pollution issues is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCBs) broad powers to protect water quality and is the primary authority for implementation of California's responsibilities under the Federal Clean Water Act.

The Los Angeles Regional Water Quality Control Board (LARWQCB) has designated DHS' Recreational Health Program as the agency responsible for the ocean water contact sports area regulatory program. Attachment A-1 is DHS' current Ocean Water Regulatory & Monitoring Protocol which incorporates the following State laws and

regulations: California Health and Safety Code, Section 11580, the California Code of Regulations, Title 17, Sections 7956-7962, and AB 411, Wayne (Chapter 765, Statutes of 1997).

The California Health and Safety Code, Section 11580 and the California Code of Regulations, Title 17, Sections 7956-7962, authorize the local health officer to conduct ocean water bacteriological monitoring and take corrective action when standards are not met. AB 411, Wayne (Chapter 765, Statutes of 1997), requires local health officers to immediately test and take related action in the event of an unknown sewage release that is known to have reached recreational waters, to immediately close those waters until it has been determined by the local health officer that the waters are in compliance with the standards, and to notify the agency responsible for the operation and maintenance of the public beach within 24 hours of any public beach closure or restriction. In addition, the bill also requires the agency responsible for the operation and maintenance of the public beach to establish a telephone hotline and update it as needed and notify the public of beach postings and restrictions.

Ocean Water Regulatory & Monitoring Protocol

County of Los Angeles
Department of Health Services
Public Health Programs and Services
Environmental Health
Recreational Health Program
(Revised 3/23/00)

PROGRAM DESCRIPTION

The Recreational Health Program is responsible for the ocean water contact sports area regulatory program. The program enforces laws and regulations regarding beach sanitation and State water quality standards. Elements of the program include ocean water monitoring, posting of warning signs on beaches when State standards are not met and emergency response including beach closure when a sewage or chemical spill occurs.

REGULATORY PROGRAM

The California Health and Safety Code, Section 11580 and the California Code of Regulations, Title 17, Sections 7956-7962, authorize the local health officer to conduct ocean water bacteriological monitoring and take corrective action when standards are not met. The County of Los Angeles Department of Health Services (DHS) conducts a comprehensive regulatory program. A routine ocean water monitoring program is conducted through sample collection and bacterial analyses. Minimum standards prescribed by the State constitutes the basis for regulatory action.

Incident reports involving the discharge of sewage not meeting Waste Discharge Requirements established by the California Regional Water Quality Control Board are received and evaluated according to the policy outlined below. Reports of hazardous material discharges affecting the beach and surf zone waters are investigated by the appropriate agency. Information and reports received as a result of these investigations are received and evaluated.

In order to effectively discharge the duties of the Health Officer in regard to ocean water contact sports areas, a beach warning, beach closure and rain advisory policy have been developed and implemented.

BEACH WARNING, CLOSURE AND RAIN ADVISORY POLICY

BEACH WARNING: Regulatory action taken by the Health Officer posting "Beach Warning" signs in areas where a storm drain discharges to the ocean or where bacteria levels exceed State bacteriological single sample standards as set forth in the California Code of Regulations, Title 17. DHS will direct the Los Angeles County, Fire Department, Lifeguard Division, (LD) to post affected portions of the beach with "Beach Warning" signs. This information will be made available via a telephone hotline.

BEACH CLOSURE: Regulatory action taken by the Health Officer closing an affected area of beach. This action is taken when there is a known incident of sewage pollution or chemical contamination of ocean water. DHS will direct the Los Angeles County, Fire Department, Lifeguard Division, (LD) to close affected portions of the beach and post "Beach Closure" signs. The DHS Public Information Office will issue as soon as practicable a public advisory

through the wire services explaining which beach areas are closed and why. In addition, this information will be made available via a telephone hotline.

HAZARDOUS MATERIALS DISCHARGE: Beaches impacted by the discharge of a verified hazardous material (visible material, strong odor, etc.).

ELEVATED BACTERIA LEVELS: Bacteria levels that exceed State bacteriological single sample standards as set forth in the California Code of Regulations, Title 17.

PUBLIC NOTIFICATION: The DHS Public Information Office will issue a public advisory as soon as practicable to the wire services whenever an advisory due to rain is issued or when a beach area is closed. In addition, this information will be made available via a telephone hotline.

BEACH RAINFALL ADVISORY: Action taken by the Health Officer when a significant rainstorm is predicted or as one occurs. A significant rainstorm is one that will likely produce runoff that will significantly increase bacteria levels in ocean waters. The DHS Public Information Office will issue as soon as practicable a public advisory through the wire services explaining that storm drain flows may cause elevated bacterial counts for 72 hours and ocean water contact, especially in areas adjacent to storm drain flows, should be avoided. In addition, this information will be made available via a telephone hotline.

MONITORING PROGRAM

DHS routinely collects ocean water samples at 38 sampling locations from Ventura County, south to Redondo Beach Pier and on Catalina Island. The majority of sampling points are located at frequented beaches and in the vicinity of storm drains.

Samples are collected from ankle to knee-deep water, approximately 4 to 24 inches below the water surface in the surf zone.

Sample analyses are conducted by the Department of Health Service's laboratory for total coliform, fecal coliform and enterococcus bacteria. Bacterial analysis is made in accordance with procedures recommended by the latest edition of Standard Methods for Examination of Water and Wastewater.

Analyses are completed within 24-48 hours from the time samples are collected. Results are obtained from the laboratory via email or by fax. The laboratory will telephone results sooner if unusually high counts are detected.

Samples are collected every Monday. Samples from Catalina Island are collected every Tuesday between April 1st and October 31st. Holidays may require samples to be collected on alternate days due to laboratory scheduling requirements.

SUPPLEMENTAL MONITORING DATA FROM OTHER AGENCIES

The Los Angeles City, Bureau of Sanitation, Environmental Monitoring Division (EMD) laboratory provides the Recreational Health Program with daily bacteriological data for 20 shoreline stations with daily data for total coliform and fecal coliform. Tests for enterococcus bacteria are conducted five times a month. Data for Ballona Creek, selected storm drains and special sampling results are also included. Data is provided daily via email or by fax. Results are normally obtained within 24 - 48 hours except on weekends and holidays.

The Los Angeles County Sanitation District collects 8 shore samples from Malaga Cove to Outer Cabrillo Beach and conducts analyses for total coliform, fecal coliform and enterococcus bacteria. The Los Angeles County Sanitation District laboratory provides the Recreational Health Program with sampling results every Monday and Tuesday via fax.

DATA TABULATION

Samples results are reported, stored and analyzed using Microsoft Excel. Samples reported as "greater than" or "less than" are recorded as the number reported (e.g. > 16,000 will be recorded as 16,000 and < 10 as 10).

A summary report of samples collected by the Department of Health Services is prepared and distributed monthly using Microsoft Excel.

BACTERIOLOGICAL STANDARDS

Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed:

10,000 total coliform bacteria per 100 ml or

400 fecal coliform bacteria per 100 ml or

104 enterococcus bacteria per 100 ml or

1,000 total coliform bacterial per 100 milliliters, if the ratio of fecal/total coliform bacteria exceeds 0.1.

SIGNS

There shall be three types of signs that are used to warn the public of hazardous conditions in ocean waters:

1. **BEACH CLOSURE SIGN** (aka "Yellow Sign") - This sign shall be posted when a beach

is closed due to a sewage spill or chemical contamination. The sign shall have the following verbiage in both English and Spanish:

"Beach Closed"

There shall be a graphic depiction of a swimmer in a red circle with a diagonal hash mark

2. **STORM DRAIN WARNING SIGN** (aka "White Sign" yellow/black stripes) - This sign shall be posted at or in front of any flowing storm drain or creek discharging into the ocean. The sign shall have the following verbiage in both English and Spanish:

"WARNING - Storm Drain Water May Cause Illness"

The words "WARNING" shall be in red letters and the remaining words in black letters on a white background. There shall be a graphic depiction of a swimmer in a red circle with a diagonal hash mark and a yellow/black striping on the border.

3. **BEACH WARNING SIGN** (aka "Beige Sign" red/black stripes) - This sign shall be posted at areas of beach where testing indicates that bacteria levels exceed State bacteriological single sample standards. The sign shall have the following verbiage in both English and Spanish:

"WARNING - Ocean Water Contact May Cause Illness - Bacteria Levels Exceed Health Standards"

The words "WARNING" shall be in red letters and the remaining words in black letters on a light brown background. There shall be a graphic depiction of a swimmer in a red circle with a diagonal hash mark and a red/black striping on the border.

PROCEDURES FOR NOTIFICATION TO POST WARNING / CLOSURE SIGNS

Notification by fax shall be made to the agencies listed in Appendix IV whenever:

- state standards are exceeded and warning signs are being posted
- beaches are closed
- a rain advisory is issued

In addition all beach closures are to be reported by telephone to the appropriate agencies.

PROCEDURES DURING SEWAGE SPILLS

- A. All information and actions taken shall be recorded in the incidence log book maintained by the Recreational Health Program.
- B. The following information should be obtained from the person reporting the spill:

1. Location of spill.
 2. Whether sewage has entered or will enter ocean waters.
 3. Time the spill began and ended and the estimated number gallons involved.
 4. If flow is continuing, the estimated time of repair and present flow rate.
 5. Cause of the spill.
 6. Actions taken.
 7. Agencies involved in repairs and cleanup.
- C. Affected areas of beach shall be closed as soon as possible regardless of bacteria levels.
- D. Recreational Health Program staff assigned to driving beach emergency response vehicles may be reached by cellular telephone or pager. All affected Environmental Health programs should coordinate their activities.
- E. When any beach or portion of beach is closed due to a sewage or chemical discharge, the notification list in Appendix I should be used.
- F. GUIDELINES TO SAMPLING POINTS IN RELATION TO SIZE OF SEWAGE SPILL

Bacteriological water monitoring activities may be coordinated with other agencies, e.g., City of Los Angeles, Los Angeles County Department of Public Works, Los Angeles County Sanitation District.

Generally, in large spills, e.g. spills exceeding 500,000 gallons, enough time should be given for the spill to spread its maximum distance before assuming that negative bacteria results indicate safe levels.

The following is a suggested guideline for bacteriological sampling:

Less than 1,000 gallons	minimum of 3 samples within and at the limits of the closure zone
1,000 - 10,000 gallons	minimum of 5 samples within and at the limits of the closure zone
10,000 - 100,000 gallons	minimum of 7 samples within and at the limits of the closure zone
100,000 - 1 million gallons	minimum of 9 samples within and at the limits of the closure zone
1 - 2 million gallons	minimum of 11 samples within and at the limits of the closure zone

Over 2 million gallons

minimum of 13 samples within and at the limits of the closure zone

Circumstances and available data may dictate alternative courses of action.

PROCUDURES DURING ELEVATED BACTERIA LEVELS

- A. All information and actions taken shall be recorded in the incidence log book maintained by the Recreational Health Program. In addition the information shall be entered into State Water Control Resource Board Microsoft Access database.
- B. Elevated bacterial levels exist when any of the single sample standards are exceeded.
- C. When a sampling station exhibits elevated bacterial levels, when practicable, a resample shall be taken between 24-48 hours after the initial sample.
- D. When there is an elevated bacterial level the following guidelines shall be followed:
 - All storm drains continually discharging or intermittently discharging during dry weather into the ocean shall be posted with a white "Warning" (storm drain) sign at the point where the discharge meets the surf zone.
 - When a sampling station, in proximity to a storm drain, exceeds single State standards, white "Warning" (storm drain) signs shall be posted at 50 and 100 yards either side of the storm drain or where the point of discharge meets the surf zone. If not already posted, A white "Warning" (storm drain) sign shall be posted directly in front of the storm drain or where the point of discharge meets the surf zone. Posting patterns and distances may vary depending on bacteria levels and local geographic conditions.
 - When a sampling station, not in proximity to a storm drain, exceeds single State standards, a beige "Warning" sign shall be posted at the sampling station and 50 yards either side of the sampling station. Posting patterns and distances may vary depending on bacteria levels and local geographic conditions.
 - Areas with a chronic history of elevated bacteria levels exceeding State standards, may be posted continuously with either a beige or white "Warning" sign.

PROCEDURES DURING RAINFALL EVENTS

- A. A rainfall event shall begin anytime there is greater than or equal to 0.1 inches of precipitation recorded by the National Weather Service at the Los Angeles Civic Center (located at USC).
- B. A rainfall event shall end 72 hours after cessation of all precipitation as recorded by the National Weather Service at the Los Angeles Civic Center.
- C. A rainfall event may be declared if significant precipitation is recorded in other parts of Los Angeles County and not at the Los Angeles Civic Center.
- E. When a rainfall event is declared the DHS Public Information Office will issue as soon as practicable a public advisory through the wire services explaining that storm drain flows may cause elevated bacterial counts for 72 hours and ocean water contact, especially in areas adjacent to storm drain flows, should be avoided. In addition, this information will be made

available via a telephone hotline.

- F. All flowing storm drains shall be posted during a rainfall event.

BEACH CLOSURE GUIDELINES IN THE EVENT OF A SEWAGE SPILL

Beaches affected by a known discharge of untreated or partially treated sewage not meeting the Waste Discharge Requirements established by the California Regional Water Quality Control Board.

Guidelines for closure are:

Less than 1,000 gallons	=	100 yards - ¼ mile each side of discharge
1,000 to 10,000 gallons	=	¼ - ½ mile each side of discharge
10,000 to 100,000 gallons	=	¾ - 1 mile each side of discharge
100,000 to 1 million gallons	=	2 - 3 miles each side of discharge
1 to 2 million gallons	=	4 - 5 miles each side of discharge
More than 2 million gallons	=	minimum 5 miles each side of discharge

Samples will be collected at locations to be determined on the basis of reported volume of the spill, prevailing winds and currents, location of the discharge and the extent of the closure.

REOPENING BEACH AREAS

- A. Beach areas that were closed due to a know release or spill of untreated or inadequately treated sewage shall be reopened when it has been determined that the source of the sewage release has been eliminated, the closure was for a minimum of 48 hours after cessation of sewage flow and all resampling results meet State standards.
- B. Beach areas closed because of elevated bacteriological levels shall be reopened when all resampling results meet State standards.
- C. Beaches closed because of a hazardous materials discharge shall be reopened when the responsible County agency conducts an on-site inspection and the health officer determines that there is no significant risk to public health.

APPENDIX I

BEACH CLOSURE NOTIFICATION LIST

1. Los Angeles County Fire Department, Lifeguard Division

2. Los Angeles County Beaches and Harbors,
Stan Wisniewski, or James Faucett

if Marina del Rey Beach, Marina del Rey harbor, or Ballona Creek is involved also call:
Los Angeles County Sheriff - Harbor Patrol
UCLA Aquatic Center, dock master

3. FOR INNER CABRILLO BEACH if Inner Cabrillo Beach is effected.
Los Angeles City, Department of Recreation and Parks, Lifeguard Division
Port Police, San Pedro
Cabrillo Marina

4. Environmental Health chain of command.

5. Health Services Public Information Office

6. Department of Public Works, Environmental Programs

7. Los Angeles City Bureau of Sanitation - Environmental Monitoring Division

★ 8. For coastal areas of Santa Monica City northward, call Supervisor Yaroslovski's office

9. For coastal areas south of Santa Monica City, call Supervisor Knabe's office

10. If the spill is major and may initiate public inquiries, Acute Communicable Disease

11. Ventura County Health Department if the effects of the spill extends to the Ventura County border.

12. Long Beach City Health Department if the effects of the spill spill extends to the Long Beach City border.

13. City of Santa Monica if the City of Santa Monica City beaches are involved.

14. United States Coast Guard if outer costal waters are involved.

APPENDIX II

MONITORING LOCATIONS

Agency	No.	Monitoring Location
DHS	010	Leo Carrillo State Beach, 35000 Pacific Coast Hwy., Malibu [in front of beach restrooms]
DHS	009	Nicholas Beach, Malibu [100 feet west of lifeguard tower]
DHS	008	Trancas Beach, Malibu [50 yards east of Trancas Bridge]
DHS	007	Westward Beach, Malibu [just east of Zuma Creek]
DHS	006	Paradise Cove, 28128 Pacific Coast Hwy., Malibu [adjacent to the west side of the pier]
DHS	005	26610 Latigo Shore Drive., Malibu [in front of Tivoli Bay Villa treatment plant]
DHS	004	Puerco Beach, 25500 Pacific Coast Hwy., Malibu [at lifeguard station by bridge]
DHS	003	Malibu Point, Malibu Colony Dr., Malibu [in front of lifeguard tower]
HYP	S1	Surfrider Beach, Malibu [50 yards east of last known breach]
DHS	002	Malibu Pier, Malibu [50 yards east of pier]
DHS	001	Big Rock Beach, 19948 Pacific Coast Hwy., Malibu [off point]
HYP	S2	Topanga Point, Malibu [in front of lifeguard station]
DHS	101	17200 Pacific Coast Hwy., Pacific Palisades [1/4 mile east of Gladstone's restaurant and Sunset storm drain, in front of staircase]
DHS	102	Bel Air Bay Club, 16801 Pacific Coast Hwy., Pacific Palisades [at the chain link fence just east of the Bay Club]
HYP	S3	Pulga storm drain, Pacific Palisades [50 yards east of storm drain]
DHS	103	Temescal storm drain, Pacific Palisades [25 yards east of storm drain]
HYP	S4	Santa Monica Canyon storm drain. Pacific Palisades [50 yards east of flow]
DHS	104	Montana Avenue storm drain, Santa Monica [25 yards east of storm drain]
DHS	105	Wilshire Blvd., Santa Monica [in front of the Wilshire Blvd. storm drain]

HYP	S5	Santa Monica Pier, Santa Monica [50 yards south of pier]
HYP	S6	Pico-Kenter storm drain, Santa Monica. [50 yards south of storm drain]
DHS	106	Strand Street extended, Santa Monica [in front of restrooms]
HYP	S7	Ashland storm drain, Santa Monica [50 yards south of storm drain]
DHS	107	Brooks Ave. extended, Los Angeles [in front of Brooks storm drain]
HYP	S8	Windward storm drain, Los Angeles [50 yards north of storm drain]
DHS	108	Venice Pier, Venice [50 yards south of pier]
DHS	109	Topsail Street extended, Venice
HYP	S9	Marina del Rey Beach, Marina del Rey [at lifeguard tower]
HYP	S10	Ballona Creek, Playa del Rey [50 yards south]
HYP	S11	Culver Blvd. extended, Playa del Rey [north side of Culver storm drain]
DHS	110	World Way extended, Playa Del Rey [0.15 miles south of maintenance building, south of jetty]
HYP	S12	Imperial Highway storm drain, Playa Del Rey [50 yards north of storm drain]
DHS	111	Opposite Hyperion plant, Playa Del Rey [at the one mile outfall pipe]
DHS	112	Grand Avenue extended, El Segundo [in front of Grand Ave. storm drain]
HYP	S13	40th Street extended, Manhattan Beach
HYP	S14	Manhattan Beach Pier, Manhattan Beach [50 yards south of pier]
DHS	113	26th Street extended, Hermosa Beach
HYP	S15	Hermosa Beach Pier, Hermosa Beach [50 yards south of pier]
DHS	114	Herondo Street extended, Redondo Beach [in front of Herondo storm drain]
HYP	S16	Redondo Pier, Redondo Beach [50 yards south of pier]
DHS	115	Topaz Street extended, Redondo Beach [north side of jetty]
HYP	S17	Avenue I extended, Redondo Beach [50 yards south of storm drain]
HYP	S18	Arroyo Circle, extended, Malaga Cove, Palos Verdes Estates
LACSD	MC	Malaga Cove, Palos Verdes Estates
LACSD	BC	Bluff Cove, Palos Verdes Estates

Spill site
why isn't
DHS testing
in the marina?

LACSD	S1	Long Point, Rancho Palos Verdes
LACSD	S2	Abalone Cove, Rancho Palos Verdes
LACSD	S3	Portuguese Bend, Rancho Palos Verdes
LACSD	S5	White Point, San Pedro [Western Avenue extended]
LACSD	S6	Wilder Addition Park, San Pedro
LACSD	S7	Outer Cabrillo Beach, San Pedro
HYP	CB2	Inner Cabrillo Beach, San Pedro [in front of the lifeguard tower]
DHS	116	Avalon Beach [1/3 of the way between storm drain and Green Pleasure Pier]
DHS	117	Avalon Beach [2/3 of the way between storm drain and Green Pleasure Pier]
DHS	118	Avalon Beach [1/3 of the way between Green Pleasure Pier & BB restaurant]
DHS	119	Avalon Beach [2/3 of the way between Green Pleasure Pier & BB restaurant]
DHS	120	Avalon Beach [between the Busy Bee Restaurant and Tuna Club]

KEY

AGENCIES

DHS Department of Health Services

HYP Los Angeles City Bureau of Sanitation, Hyperion Laboratory

LACSD Los Angeles County Sanitation District

FREQUENCY AND TYPES OF TESTING

DHS Tests for total coliform, fecal coliform and enterococcus, weekly, every Monday.
(Samples 116 through 120 are only tested between April 1st and October 31st)

HYP Tests for total coliform and fecal coliform, daily, and enterococcus five times per month.
except CB2 which is tested for enterococcus daily.

LACSD Tests for total coliform daily, and enterococcus five times per month.

APPENDIX III**DATA DISTRIBUTION OF MONTHLY REPORT**

Copies are distributed to the following programs or agencies:

1. Recreational Health Program
2. Recreational Health Program copy
3. Director, Bureau of Environmental Protection
4. Toxics Epidemiology Program
2615 S. Grand Ave. Rm. 502
Los Angeles, CA 90007
Atten: Philip Jacobs
5. Mountain and Rural Program
2525 Corporate Place Rm. 150
Monterey Park, CA 91754
6. Los Angeles County, Department of Public Works
P.O. Box 1460
Alhambra, CA 91702-1460
Atten: Gary Hildebrand
7. Los Angeles City Bureau of Sanitation
Environmental Monitoring Division
Hyperion Treatment Plant
12000 Vista Del Mar
Playa Del Rey, CA 90293
Atten: Ron Cressey
8. Mr. James A. Fawcett
Department of Beaches and Harbors
13837 Fiji Way
Marina Del Rey, CA 90292
9. Department of Beaches and Harbors
13483 Fiji Way #3
Marina del Rey, CA 90292
10. Dr. Dorothy Soule

USC

Hancock Institute for Marine Studies
University Park MC 0371
Los Angeles, CA 90089-0371

10. Surfrider Foundation
Envelopes provided
100 Wilshire Blvd, Suite 1000
Santa Monica, CA 90401
11. Heal the Bay
Envelopes Provided
2701 Ocean Park # 150
Santa Monica, CA 90405
or Fax (310) 581-4195
12. Ms. Billi Roman
City of Santa Monica
1212 5th Street, 3rd Floor
Santa Monica, CA 90401
or Fax (310) 393-6697
13. Los Angeles County Lifeguards
Captain Robert Buchanan
2600 Strand
Manhattan Beach, CA 90266

APPENDIX IV

POSTING OF SIGNS FAX NOTIFICATION LIST

	Speed dial	
Lifeguard headquarters	1	(310) 306-3619
Lifeguard public information (Manhattan Beach)	2	(310) 939-7220
Santa Monica lifeguard station	3	(310) 458-6445
Hermosa lifeguard station	4	(310) 372-6902
Zuma lifeguard station	5	(310) 457-1632
Cabrillo lifeguard station	6	(310) 514-2017
Avalon lifeguard station	7	(310) 510-0012
Beaches and Harbors	8	(310) 821-8155
Inner Cabrillo Beach (LA City)	9	(310) 548-2649
Heal the Bay	10	(310) 581-4195
Hyperion Laboratory	11	(310) 648-5060
Santa Monica City, Brian Johnson	12	(310) 393-1279
Malibu Office M&R	13	(310) 317-0214